

U.S. Trade With Foreign Affiliates of U.S. Firms

This report gives the first results of a new annual survey designed to show the amount and pattern of those exports from the United States which reach foreign markets through foreign affiliates of U.S. firms. Information of this type is needed to fill one of the large gaps in our knowledge of the overall effects on U.S. trade and payments of the very rapid expansion of U.S. industry into producing and distribution facilities abroad. Up to now, the principal data regularly collected have shown the capital flows, payments of income and fees, total sales abroad, and shipments by the foreign affiliates to the United States.¹ Additional data are also collected on the total capital expenditures and financing of the affiliates. It has not been possible, however, to relate this information to U.S. export trade, which can be significantly affected in several ways: foreign affiliates use U.S. goods and parts or components in manufacturing; they act directly or indirectly to promote the sale of U.S. goods; they use U.S. capital equipment; they also produce goods abroad which compete with or substitute for U.S.-produced goods; and they alter indirectly the capacity of foreign countries to make dollar expenditures of all kinds, with the possible effect of raising both our exports and imports and leading to enlarged international trade without changing the balance.

It should be stressed at once that the information now becoming available can help to describe the size and nature of these effects, but too much should not be expected at this early stage in the exploration of this complex subject. Reports are being received from a large cross section of U.S. industrial companies with foreign affiliates, but, as the note on methods at the end of this

report points out, there are many difficulties in estimating universe totals in detail. For many relationships a series of observations over time is necessary for any useful conclusions, but only very incomplete data are now available for a few prior years. To study the effects of competition or substitutions of foreign-produced goods for U.S. goods a much broader and more detailed analytical framework would have to be developed, involving demand and supply conditions in specific markets for specific products. Although the data that follow illuminate a part of this subject, and the continuing survey will provide the necessary time series, it is clear that any kind of definitive analysis

of the overall effects of foreign investment on our balance of payments will depend on the results of a comprehensive survey of direct foreign investments, going beyond the 1957 survey.²

Principal findings

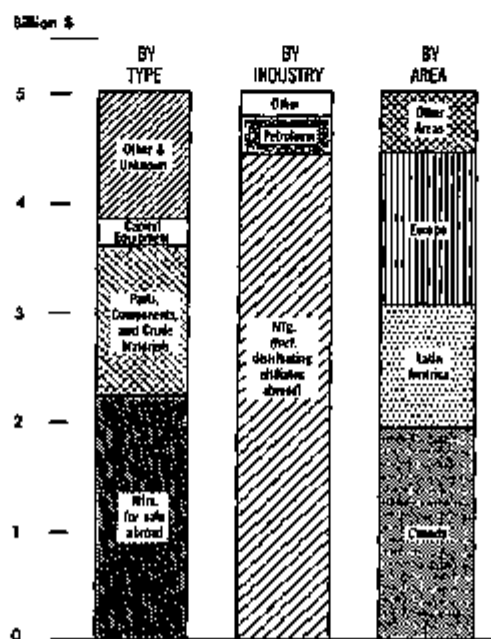
1. On the basis of reports from a sample group of U.S. industrial companies, foreign affiliates of all such firms imported at least \$5 billion of U.S. goods in 1963. Since all U.S. purchases by the foreign affiliates could not be identified by the parent companies who reported, this does not represent their total imports from the U.S. The \$5 billion represented about 23 percent of all U.S. exports in 1963.

2. U.S. manufacturing firms accounted for \$4.4 billion of these exports to foreign affiliates; this included \$3.2 billion to their manufacturing installations and \$1.2 billion to affiliates that are primarily distributors of the parent company's products. The \$4.4 billion of exports to the affiliates of manufacturing firms can be compared with total exports of selected manufactured and semimanufactured goods from the United States of \$13.3 billion. In order to provide a product range roughly comparable with that of the foreign affiliates, the latter figure excludes certain products not produced in significant quantities abroad by U.S. companies, such as scrap metals, aircraft, and military items, but includes some semimanufactures not usually included in a manufacturing category.

3. Of exports to the manufacturing affiliates abroad, about 40 percent were materials, components or other manufactures for processing and assembly, and about 34 percent were manufactures resold by these affiliates with minimum further processing. The re-

Exports to Foreign Affiliates of U.S. Firms, 1963

Finished manufactures for resale by foreign affiliates are the largest category of exports



Note.—See methodology for data derivation.

¹ For the most recent data see the SURVEY OF CURRENT BUSINESS for August 1964 and October 1964.

² U.S. Business Investments in Foreign Countries, published by the Office of Business Economics in 1960.

mainder was mainly capital equipment, items purchased here directly by the foreign affiliates, and other items not identified by type.

4. Exports (except capital goods) to the manufacturing affiliates abroad appear to be the equivalent of more than 9 percent of the total sales of the affiliates, which amounted to over \$31 billion in 1963. This ratio varied greatly among the product groups and areas of the world; for some product lines, such as processed food or paper and pulp, the use of U.S.-source goods was minimal, while for nonelectrical machinery the ratio of exports to sales was 16 percent. Among the areas, Canadian plants used a relatively high proportion of U.S. imports in their production activities, while for European affiliates the overall ratio was under 5 percent.

Estimated Exports to Foreign Affiliates, 1963

(Millions of dollars)

Manufacturing:	
As reported	1,796
Amount added to reach estimated universe total	1,428
Estimated universe total	3,224
Distribution:	
As reported	667
Amount added to reach estimated universe total	834
Estimated universe total	1,501
Petroleum, as reported	
	358
Mining, as reported	
	80
Other industries, as reported	
	137
Total, all industries	5,497

5. It appears that the growth in exports to foreign manufacturing affiliates has roughly kept pace with the growth in other manufacturing exports from the U.S. since 1959, but that these overall growth rates are lower than the rate of increase of sales by the foreign plants. However, there are significant divergences from this pattern for individual areas and product lines.

6. The direct reflection in the balance of payments accounts of the activities of the foreign manufacturing affiliates is a sizable surplus. On the receipts side in 1963 are exports of \$3.2 billion and remittances of income and royalties amounting to \$1 billion; on the payments side are imports into the U.S. from the affiliates of \$1.1 billion and net capital outflows of \$0.7 billion. This direct measure cannot represent the full effect of increased investment abroad, however, because it does not

take account of many indirect results. A full measure would include, for instance, an evaluation of the effect on the competitive position of U.S. based industry resulting from the extension of U.S. industry abroad, as compared with the loss of foreign markets that might result from increased competition by foreign firms not affiliated with U.S. parent companies.

Exports to Foreign Affiliates

Detailed tabulations of data reported for 1962 and 1963 are given in the first two tables, with adjustments to improve year-to-year comparability, but without attempting to expand the detailed results to universe estimates. Such universe estimates for summary data are given in tables 3-7.

Table 1.—Reported Exports to the Foreign Affiliates of U.S. Firms, 1962 and 1963, by Industry and Area

(Millions of dollars)

By industry of foreign affiliate	All areas, total		Canada		Latin America		Europe		Other areas	
	1962	1963	1962	1963	1962	1963	1962	1963	1962	1963
Total reported exports	2,697	2,760	347	972	644	499	842	792	163	298
Charged on parent company books:										
For processing or assembly	685	726	294	848	192	176	152	181	77	83
Parts, components, or other manufactures	620	725	283	340	144	141	131	154	61	70
Crude materials or supplies	66	61	11	8	18	15	22	27	14	11
For resale without further manufacture	1,196	1,307	805	434	245	231	608	496	139	157
Capital equipment	246	149	28	25	72	63	82	85	68	25
Other exports charged to parent	121	119	10	10	75	84	8	8	26	16
Other exports:										
Exports purchased directly by foreign affiliate	286	315	207	287	34	35	19	25	25	17
Exports sold by affiliate on commission basis	193	184	8	18	68	107	102	57	58	2
Manufacturing, total	1,539	1,887	723	844	290	257	362	397	163	169
Charged on parent company books:										
For processing or assembly	603	763	277	232	128	145	124	164	64	73
Parts, components, or other manufactures	542	646	269	325	126	131	103	120	63	61
Crude materials or supplies	60	57	9	7	15	14	21	25	13	11
For resale without further manufacture	822	855	283	251	73	66	189	174	60	78
Capital equipment	93	62	23	23	16	7	37	17	17	8
Other exports charged to parent	13	15	3	10	7	1	3	2	1	1
Other exports:										
Exports purchased directly by foreign affiliate	215	265	180	310	15	18	15	23	5	4
Exports sold by affiliate on commission basis	93	108	7	19	43	60	28	26	19	2
Distribution, total	672	611	184	312	168	174	364	285	51	49
Charged on parent company books:										
For processing or assembly	46	44	15	15	8	8	23	18	3	3
Parts, components, or other manufactures	45	41	15	16	4	7	23	15	3	3
Crude materials or supplies	1	3			1	1	(*)	2		
For resale without further manufacture	464	472	84	78	139	140	266	226	28	29
Capital equipment	26	23	(*)	4	4	2	11	12	10	8
Other exports charged to parent	7	(*)	6	(*)	(*)	(*)		(*)		
Other exports:										
Exports purchased directly by foreign affiliate	34	22	18	18	3	8	8	(*)	10	(*)
Exports sold by affiliate on commission basis	65	51	1	(*)	15	21	50	30		
Petroleum, total	296	315	16	13	25	129	76	80	107	94
Charged on parent company books:										
For processing or assembly	15	20	(*)	(*)	5	6	6	9	4	6
Parts, components, or other manufactures	15	20	(*)	(*)	5	6	6	9	4	6
Crude materials or supplies	1	3			1	1	(*)	2		
For resale without further manufacture	152	144	6	8	34	33	62	57	61	64
Capital equipment	48	29	1	1	24	21	3	6	24	12
Other exports charged to parent	58	64	(*)	(*)	21	45	9	6	21	14
Other exports:										
Exports purchased directly by foreign affiliate	20	22	9	9	1	1	(*)	2	9	10
Exports sold by affiliate on commission basis	(*)	26	(*)			25	(*)	38	41	6
Other industries, total	192	147	4	4	97	107	86	39	41	6
Charged on parent company books:										
For processing or assembly	22	18	1	(*)	18	17	1	(*)	6	(*)
Parts, components, or other manufactures	17	17		(*)	15	17	1	(*)	2	(*)
Crude materials or supplies	6	1	1	(*)	2	3	1	(*)	1	(*)
For resale without further manufacture	27	25	2	2	2	22	29	4	1	(*)
Capital equipment	49	36	(*)	(*)	28	34	1	(*)	20	(*)
Other exports charged to parent	43	41	(*)	(*)	36	40			6	(*)
Other exports:										
Exports purchased directly by foreign affiliate	17	16	1	1	16	14	(*)	(*)	2	2
Exports sold by affiliate on commission basis	34	1			(*)	(*)	36	1	2	

1. Amounts are given as reported by sample group without blow-up; includes only data for affiliates covered in both years.
2. Almost entirely distributing affiliates of U.S. manufacturing firms.

*Less than \$500,000.

Notes.—Detail may not add to totals because of rounding.

series through their foreign affiliates.

Exports of capital equipment, i.e., equipment charged to capital account by the foreign affiliates, appear relatively small in these surveys (see also table 5) but coverage of these exports is probably relatively deficient because reporting parent companies do not have a record of purchases by their subsidiaries or construction firms building plants under contract abroad.

Nearly all of the exports mentioned above were exported directly by the parent company to the affiliate, or were purchased by the parent for account of the foreign affiliate. In addition, fairly substantial amounts of goods purchased directly in the United States by affiliates were reported, but about two-thirds of

this was reported for Canadian affiliates. It is not known yet whether such direct purchases in the United States by affiliates in other countries are in fact quite small, or whether the records of the parent companies do not reflect them.

A final, relatively small category of exports is goods sent to the affiliates for sale on a commission basis, mainly manufactures of the parent companies.

Largest exports to Canada

Affiliates in Canada account for far more imports from the United States than affiliates in any other country or area shown in table 2. Most of the Canadian imports are for manufacturing, especially by automotive plants, which were expanding their imports considerably from 1962 to 1963 as production rose.

Exports to affiliates in Latin America are quite sizable, and include a large part of the exports to petroleum affiliates (especially in Venezuela) and to affiliates in agriculture and mining. Also, Panama is the site for distributing affiliates of many manufacturing companies, though the exports may actually be sold in distant areas. The principal increase from 1962 to 1963 in manufacturing exports to Latin America was reported for Mexico; for Argentina there was a marked decline. Exports to Brazil did not change materially and were relatively minor in view of the large U.S. manufacturing investment there.

Though shipments to European affiliates account for nearly 30 percent of the reported exports, they are relatively small when related to the scale of operation of U.S. companies in Europe. Much of the European total is accounted for by Swiss distributing affiliates with worldwide markets; exports to these firms dropped considerably in 1963 as some parent companies shifted production to foreign manufacturing plants. Exports to the United Kingdom were next largest in Europe.

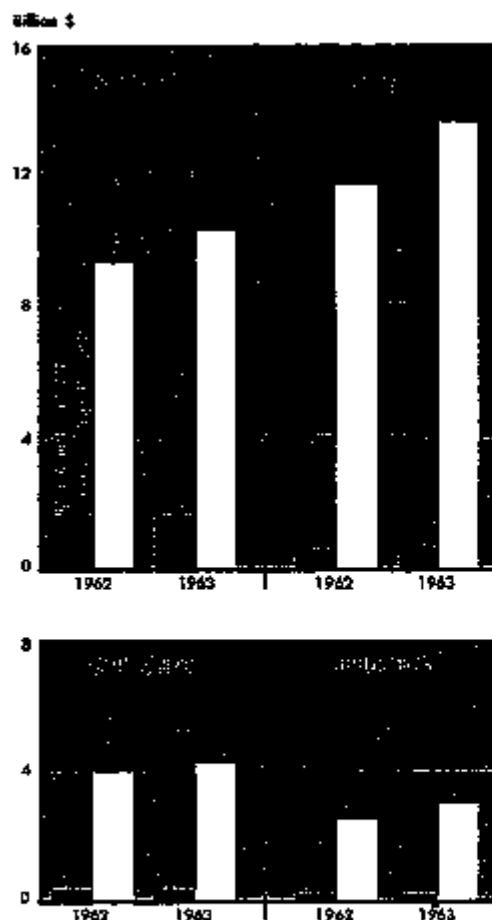
In the rest of the world, the affiliates in developed countries—Australia, Japan, and the Republic of South Africa—accounted for most of the imports from U.S. parent companies.

Exports and foreign production

In order to study the relationship between exports and the growth in sales of foreign affiliates it is necessary to expand the reported export data to totals consistent with the estimated total sales of foreign affiliates. These expanded export figures are given in tables 3 and 4. Similar procedures could not be followed for other industries since no link to foreign sales was

Manufacturing Affiliates Abroad

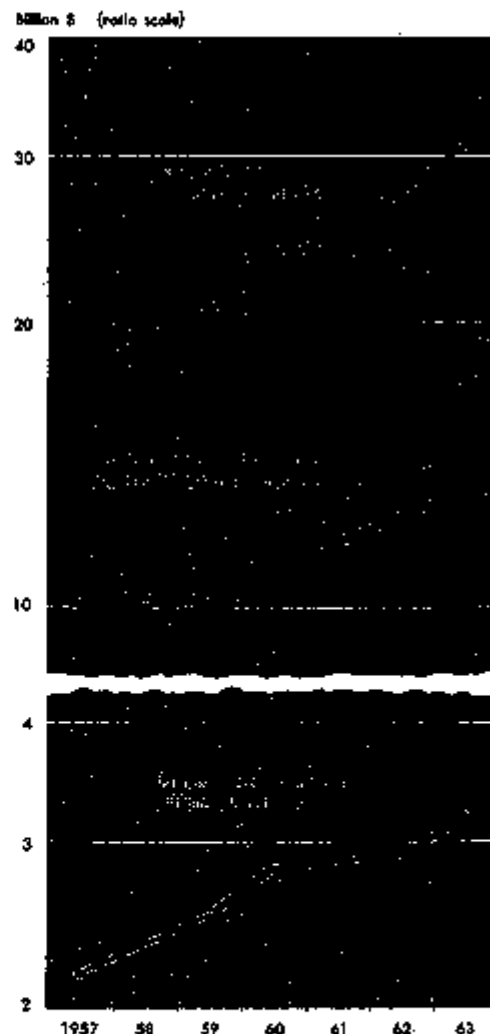
Imports from U.S. compared with total sales of affiliates



Note.—See methodology for data derivation.

Manufacturing Affiliates Abroad

- Sales of foreign affiliates have risen faster than exports of principal manufactures from the U.S.
- U.S. exports to foreign affiliates of U.S. manufacturing firms have kept pace with U.S. exports of manufactures since 1959



* Excludes items not produced abroad by U.S. companies in significant amounts.

** Estimates based on sample reports and represent primarily parent company sales. Includes sales through foreign affiliates that are primary distributors of products of U.S. parents.

Note.—See methodology for data derivation.

Table 2.—Reported¹ Exports to Affiliates in Selected Countries, 1962 and 1963
(Millions of dollars)

Area and Country	Total reported exports to affiliates		Exports to foreign affiliates by or through parent company						Other U.S. exports to foreign affiliates	
			For processing or assembly		For resale without further manufacture		Capital equipment			
	1962	1963	1962	1963	1962	1963	1962	1963	1962	1963
All areas, total.....	2,697	2,768	688	788	1,186	1,267	216	169	609	618
Canada.....	847	872	294	348	306	354	23	25	225	245
Latin American Republics, total.....	536	619	161	173	234	246	61	64	159	187
Argentina.....	80	34	39	20	22	4	19	4	15	6
Brazil.....	45	41	17	17	15	11	2	2	11	11
Chile.....	47	89	14	16	5	5	6	8	22	12
Colombia.....	27	36	6	8	6	5	6	5	4	8
Mexico.....	212	247	57	72	81	34	8	3	24	26
Panama.....	118	143	1	1	106	106	1	1	5	35
Peru.....	34	86	2	2	12	13	8	3	17	18
Venezuela.....	108	120	18	25	88	24	10	21	28	40
Other Latin American Republics.....	84	33	4	2	7	6	7	7	10	19
Other Western Hemisphere.....	49	79	1	8	3	28	11	9	36	41
Europe, total.....	842	792	182	187	568	485	42	35	128	90
Common Market, total.....	275	225	72	90	129	151	35	28	78	38
Belgium and Luxembourg.....	61	50	15	18	31	36	3	4	2	4
France.....	61	75	20	23	34	43	6	8	2	3
Germany.....	86	80	24	30	39	59	24	10	11	10
Italy.....	29	28	5	8	14	14	2	2	8	5
Netherlands.....	48	49	8	10	21	31	1	2	16	16
Other Europe, total.....	568	486	81	101	390	335	17	6	90	62
Sweden.....	28	34	7	5	17	16	1	1	3	2
Switzerland.....	242	257	7	13	268	218	(*)	1	67	27
United Kingdom.....	164	189	61	78	77	88	0	3	17	19
Other countries.....	34	20	6	5	17	14	7	4	3	4
Africa, total.....	118	71	19	22	88	23	31	5	48	28
Republic of South Africa.....	31	40	18	22	11	18	(*)	1	2	2
Other African countries.....	87	31	1	1	7	5	31	4	46	18
Asia, total.....	148	124	23	28	83	79	16	16	34	19
India.....	17	17	4	3	12	13	1	(*)	1	1
Japan.....	47	47	5	6	38	34	6	8	(*)	(*)
Philippine Republic.....	27	26	10	7	14	15	2	1	1	3
Other Asian countries.....	57	34	4	5	21	17	9	7	22	6
Oceania, total.....	95	102	25	38	38	65	19	5	7	6
Australia.....	85	96	34	38	38	48	18	5	7	6
Other countries.....	10	6	1	(*)	3	17	(*)	(*)	(*)	(*)

1. Amounts are given as reported by sample group without blow-up; includes only data for affiliates covered in both years.
* Less than \$500,000.

Note.—Details may not add to totals because of rounding.

available. In any case, the relationship would not be as significant for extractive or service industries.

The breakdown by industry of foreign manufacturing affiliates given in table 3 shows that most exports were to those producing transportation equipment, chemicals, and nonelectrical machinery. Exports to affiliates in all of these industries showed gains in 1963. Most of the gain in exports was to Canadian manufacturing affiliates; increases reported for other areas were relatively minor. Exports to distributing affiliates abroad are large in Europe and Latin America, primarily because of the use of subsidiaries in Switzerland and Panama for this purpose. Some declines were reported for both areas in 1963.

When related to total sales of the manufacturing affiliates, as in table 4, exports appear to have risen from 1962 to 1963 at roughly the same rate as sales, and to have averaged a little over 9 percent of the value of sales. Since

exports are generally reported FOB the U.S. port, some upward adjustment would be appropriate in order to take account of transport costs to the foreign plant and of foreign tariffs, internal taxes and the like. However such an adjustment would not change the export-sales ratio significantly.

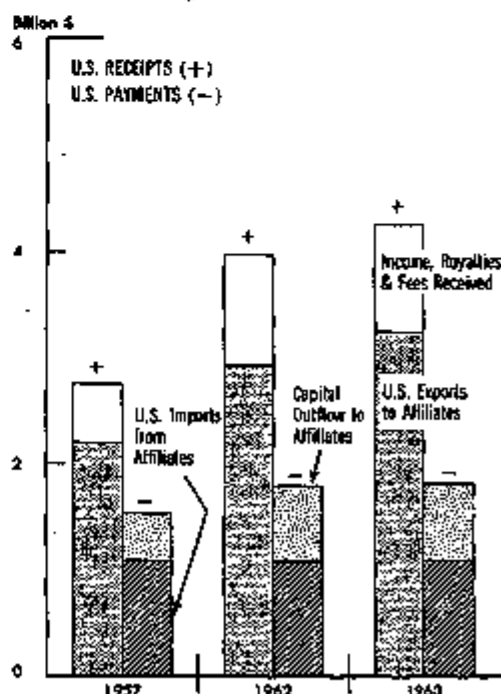
Within the average ratio, there are important differences among the various product lines and areas. Three important types of products—processed foods, paper and pulp, and primary and fabricated metals—require very little U.S.-source goods in the manufacturing process, so that exports to these affiliates average under 5 percent of sales. At the other end of the scale, a relatively large proportion of U.S. goods is used by affiliates producing automotive equipment and nonelectrical machinery.

In almost every product line, however, the ratio of U.S.-source goods to sales of the foreign plants is much higher for Canadian operations than

for those in other areas, and it tends to be lower in Europe than elsewhere. This stands out most clearly for automotive products, where the ratio of exports to sales was 27 percent for Canada in 1963 (though it was declining) but was under 3 percent for Europe, which accounts for half the foreign production by U.S. firms in this industry.

With comparable data on these ratios available only for the years 1962-63, experience is not sufficient to determine whether any systematic changes in the overall relationship of exports to sales are taking place. It seems clear that under present conditions the expansion of foreign production by U.S.-owned plants in some areas, particularly Europe, involves a lesser expansion of exports of U.S. products for use or resale by the foreign affiliates than rising production elsewhere in such plants. But the data so far developed do not show whether the ratios of exports to sales are changing in specific areas and industries. The future relationship of

Direct Transactions of Foreign Manufacturing Affiliates With the U.S.



Note.—Data on exports from U.S. and sales to U.S. are estimated from a sample of large manufacturing companies. Direct transactions do not measure the net effect on the balance of payments because indirect effects of foreign production may be significant.
(See methodology for data derivation.)

Table 3.—Estimated Total Exports¹ to Foreign Affiliates of U.S. Manufacturing Firms, 1962 and 1963, by Industry and Type

(Millions of dollars)

Industry and type	All areas, total		Canada		Latin America		Europe		Other areas	
	1962	1963	1962	1963	1962	1963	1962	1963	1962	1963
Exports to foreign manufacturing affiliates, total.....	1,512	1,221	1,420	1,034	446	524	681	728	294	299
By industry of foreign affiliate:										
Food products.....	128	119	89	79	41	49	40	30	9	5
Paper and allied products.....	34	44	23	30	9	13	(*)	(*)	2	2
Chemicals.....	650	598	194	246	128	157	147	149	51	26
Rubber products.....	120	144	19	45	30	39	53	63	15	18
Primary and fabricated metals.....	185	187	70	68	7	8	27	33	22	6
Machinery (except electrical).....	611	571	261	281	85	79	154	155	70	33
Electrical machinery.....	269	300	162	230	43	23	68	63	30	14
Transportation equipment.....	552	543	525	542	105	179	114	107	74	47
Other products.....	226	294	114	187	20	26	53	123	39	68
By type of exports:										
For processing or assembly.....	1,033	1,202	993	914	237	238	230	285	104	121
Parts, components or other manufactures.....	898	1,180	849	589	193	203	182	229	81	105
Crude materials or supplies.....	135	123	34	24	24	23	67	53	22	15
For resale without further manufacture.....	1,087	1,096	988	936	123	97	310	523	118	128
Capital equipment.....	155	102	41	37	42	31	48	27	29	25
Other exports charged to parent.....	21	33	5	25	9	4	4	4	2	2
Exports purchased directly by foreign affiliate.....	439	639	330	489	25	43	81	34	13	12
Exports sold by affiliate on commission basis.....	177	218	14	45	71	114	56	58	24	9
Exports to foreign distributing affiliates, total.....	1,232	1,221	234	249	318	354	518	511	79	116
By type of exports:										
For processing or assembly.....	83	77	23	25	8	14	42	31	5	4
For resale without further manufacture.....	941	828	153	157	264	271	453	482	51	55
Capital equipment.....	31	42	(*)	(*)	7	4	13	19	8	19
Other exports charged to parent.....	13	1	12	(*)	(*)	(*)	(*)	(*)	(*)	(*)
Exports purchased directly by foreign affiliate.....	60	80	35	45	15	13	4	(*)	1	2
Exports sold by foreign affiliate on commission basis.....	104	115	1	(*)	25	23	64	39	13	2

1. Represents blow-up of sample returns (see methodological note), (but does not include an allowance for unreported indirect purchases in the U.S. by foreign affiliates).

2. Almost entirely distributing affiliates of U.S. manufacturing firms.

*Less than \$500,000.

Note.—Detail may not add to totals because of rounding.

Table 4.—Exports to Foreign Manufacturing Affiliates Compared With Their Total Sales, 1962 and 1963

(Millions of dollars; ratios in percent)

	All areas, total		Canada		Latin America		Europe		Other areas	
	1962	1963	1962	1963	1962	1963	1962	1963	1962	1963
Manufacturing, total:										
Exports to affiliates ¹	1,630	1,300	1,376	1,011	394	378	678	681	236	253
Sales of affiliates ¹	27,714	31,317	8,335	10,287	2,399	4,286	11,736	12,618	2,520	3,433
Ratio.....	5.9	4.2	16.4	10.8	16.4	8.8	5.8	5.3	9.4	7.4
Food products:										
Exports to affiliates.....	123	89	69	28	33	30	25	30	6	4
Sales of affiliates.....	3,285	3,987	1,115	1,142	820	940	1,153	1,353	265	320
Ratio.....	3.7	2.2	6.2	2.5	3.9	3.2	2.2	2.2	2.3	1.2
Paper and allied products:										
Exports to affiliates.....	39	42	23	30	8	11	(*)	(*)	3	3
Sales of affiliates.....	1,160	1,250	920	990	100	130	30	66	60	75
Ratio.....	3.4	3.3	2.5	3.0	8.0	8.5	3.0	8.6	3.3	3.7
Chemicals:										
Exports to affiliates.....	447	481	191	243	93	94	115	112	48	32
Sales of affiliates.....	4,245	4,332	1,250	1,323	840	1,000	1,740	2,040	265	463
Ratio.....	10.5	11.1	15.2	18.3	11.0	9.4	6.6	5.5	18.0	7.3
Rubber products:										
Exports to affiliates.....	115	127	18	37	27	34	32	48	17	18
Sales of affiliates.....	1,867	1,415	260	385	302	316	480	430	245	280
Ratio.....	6.2	9.0	6.9	9.6	8.9	7.7	6.7	11.2	7.1	6.4
Primary and fabricated metals:										
Exports to affiliates.....	28	109	42	62	6	7	24	34	5	5
Sales of affiliates.....	2,023	2,333	1,065	1,146	163	184	715	840	80	150
Ratio.....	1.4	4.6	3.9	5.4	3.7	3.8	3.4	4.0	6.2	3.3
Machinery, excluding electrical:										
Exports to affiliates.....	498	541	223	272	35	25	131	159	76	53
Sales of affiliates.....	3,018	3,311	798	981	114	120	1,320	1,900	265	320
Ratio.....	16.5	16.3	28.0	27.6	30.7	21.7	7.7	8.0	28.4	16.3
Electrical machinery:										
Exports to affiliates.....	247	286	160	195	38	30	42	67	7	12
Sales of affiliates.....	2,800	3,220	1,115	1,300	375	380	1,230	1,470	140	168
Ratio.....	8.8	8.9	14.3	14.9	10.1	7.9	3.4	4.5	4.9	7.0
Transportation equipment:										
Exports to affiliates.....	511	570	517	572	150	142	30	36	55	42
Sales of affiliates.....	5,085	7,900	1,730	2,090	285	730	3,280	4,108	870	1,028
Ratio.....	10.0	7.2	29.9	27.4	52.6	19.3	0.9	0.9	6.3	4.1
Other products:										
Exports to affiliates.....	227	256	162	171	15	27	54	119	25	45
Sales of affiliates.....	2,898	3,380	1,080	1,120	208	540	1,238	1,258	230	270
Ratio.....	7.8	7.6	15.0	15.3	7.2	5.0	4.3	9.5	10.8	16.7

1. These exports are blown-up to universe totals for all foreign manufacturing affiliates but exclude exports of capital equipment for use by foreign affiliates and exports to be sold by the foreign affiliate on a commission basis. For 1963 total exports to affiliates (table 3) were \$3,221 million, including \$102 million of capital equipment and \$279 million of commission sales.

2. Represents estimated total sales of foreign manufacturing affiliates including local sales and exports.

*Less than \$500,000.

Note.—Detail may not add to totals because of rounding.

exports to sales will be affected by both of these considerations.

Relationship to total U.S. exports

Exports to foreign manufacturing affiliates in 1963 accounted for nearly one-fourth of total exports of comparable manufactured and semimanufactured goods from the United States (table 6), a slightly higher proportion than in 1962. Exports to distributing affiliates abroad accounted for an additional 9 percent of such exports from the United States. About 57 percent of U.S. exports of these types of goods to Canada in 1963 went to manufacturing affiliates there, compared to about 22 percent for Latin America, 18 percent for Europe, and only 7 percent for the rest of the world.

When the results for 1962 are compared with 1963, it appears that exports to the manufacturing affiliates in Canada were rising somewhat faster than total U.S. exports of manufactures to that country. Exports to affiliates in Latin America rose slightly while total exports to that area were falling. For Europe, exports to the affiliates rose about 7 percent, a bit more slowly than total comparable exports. There was no increase in exports to affiliates in "other" areas though total exports to such areas rose considerably.

A further set of statistics developed by the surveys shows total exports made by the parent companies to the countries in which they have manufacturing and distributing affiliates. These exports totaled \$4.9 billion in 1963, as shown in table 6, about 37 percent of all exports of the type produced by the industries represented. It should be noted that this is far short of the total exports of this group of companies, since it excludes their exports to countries where they do not have such affiliates, and also excludes exports of their products not made directly by the companies themselves. Moreover, it is less than total U.S. exports to the foreign affiliates, which would also include goods purchased from non-affiliated U.S. companies, capital equipment, and commission sales for non-affiliated firms.

About three-quarters of the \$4.9 billion of parent company exports went through their foreign manufacturing or

Table 5. Exports of Capital Equipment to Manufacturing Affiliates Compared to Their Plant and Equipment Expenditures, 1962 and 1963
(Millions of dollars)

	Exports of capital equipment		Plant and equipment expenditures	
	1962	1963	1962	1963
All areas, total	156	183	1,941	2,153
Canada	41	27	456	585
Latin America	43	21	281	306
Europe, total	48	27	933	1,034
Common Market	25	21	548	534
Other Europe	13	6	405	500
Other areas	26	16	249	279

NOTE.—Detail may not add to totals because of rounding.

distributing affiliates. About 85 percent of their exports to Canada moved in this way, and about three quarters of their exports to Latin America and Europe. These results clearly show that for those countries where affiliates have been established a very large part of the export trade of the parent company enters through the affiliate. As the preceding section indicated, some of these exports by the parents enter into the production process of their manufacturing affiliates, though this relationship varies widely among areas and industries; also a large portion is sold without further processing by manufacturing and distributing affiliates. The differential influences of these export market patterns remain to be studied.

As noted above, time-period analysis is limited by the lack of comparable data on exports to affiliates for years before 1962. Using partial data collected earlier, it appears that exports to manufacturing affiliates abroad were about \$2.2 billion in 1957, rose to about \$2.5 billion in 1959, and \$2.8 billion in 1960. For 1962 and 1963 the comparable figures are \$2.9 billion and \$3.2 billion.

As the chart shows, the rise from 1957 to 1959 was relatively large, and came at a period when overall U.S. exports were falling. Output of the foreign manufacturing affiliates was rising at about the same rate as the parent companies' exports to them in that period. From 1959 through 1963 the exports to affiliates rose about 30 percent, about the same rate as the rise in all U.S. exports of manufactures, while sales of the U.S.-owned foreign manufacturing plants rose about 50

percent. In this period, therefore, the proportion of U.S.-source goods to sales of the foreign affiliates declined somewhat.

Direct effects on balance of payments

Using the estimates for exports to foreign affiliates derived from this new survey, together with data previously developed from other surveys, it is possible to show (table 7) that receipts in the balance of payments from foreign manufacturing affiliates exceeded payments in 1963 by \$2.4 billion. About \$1 billion of the net receipts was associated with Canadian affiliates, \$0.7 billion with European affiliates, and \$0.4 billion with those in Latin America.

The overall receipts balance for these affiliates was about \$1.2 billion in 1957, the first year for which the necessary estimates are available. Gains of \$1 billion in exports and \$0.5 billion in income receipts since 1957 far exceeded the \$0.3 billion increase in net capital outflows, and there was practically no change in imports into the United States from the affiliates, which remained at about \$1 billion annually.

As noted at the beginning of this article, however, these statistics leave out of account a great many aspects of the spread of U.S.-operated plants abroad which are relevant to an evaluation of their net effect in the U.S. balance of payments. For instance, little is known about the specific commodities affected, the extent to which their continued exportation would soon be made impossible by competition or trade barriers abroad, or the extent to

Table 7.—U.S. Trade and Other Transactions With Foreign Manufacturing Affiliates of U.S. Companies, 1963, by Area
(Millions of dollars)

	All areas, total	Canada	Latin America	Europe	All other
U.S. receipts from foreign manufacturing affiliates, total	4,227	1,363	428	1,240	416
Merchandise exports	3,221	1,094	510	729	288
Dividends, interest and branch profits	940	306	78	296	86
Royalties and fees	546	33	40	175	41
U.S. payments to foreign manufacturing affiliates, total	1,808	590	223	479	196
Merchandise imports	1,082	379	75	116	86
Net capital outflows	718	101	143	364	103

1. Primarily represents exports of parent companies; exports purchased directly by foreign affiliate, and capital equipment purchased in the United States, are understated by an unknown amount.

NOTE.—Detail may not add to totals because of rounding.

which their exportation has been supplanted by production in U.S.-owned plants located abroad. Even more complex is the question of the effect on our balance of payments of additional incomes generated abroad by these enterprises, and the manner in which dollar exchange saved by foreign countries through local production of needed manufactures may, at least in part, lead indirectly to alternative expenditures here.

Some of these questions may be clarified as additional information is collected and analyzed. The data now available show principally the very significant dimensions of the foreign investment operations of U.S. firms, and indicate some of the movements in these operations.

Table 6.—Exports to Foreign Manufacturing and Distributing Affiliates, Compared With Total of Exports of Selected Manufactures From the U.S., 1962 and 1963, by Area
(Millions of dollars)

	All areas, total		Canada		Latin America		Europe		Other areas	
	1962	1963	1962	1963	1962	1963	1962	1963	1962	1963
Exports of selected manufactures from U.S.	12,870	13,246	2,799	2,871	2,545	2,377	2,880	4,028	3,546	3,890
Exports to foreign manufacturing affiliates of U.S. firms	3,013	3,221	1,480	1,494	506	510	681	729	306	289
Exports to foreign distributing affiliates of U.S. firms	1,239	1,231	284	346	310	354	610	611	79	116
Total exports of U.S. parent companies to countries where they have manufacturing or distributing affiliates	4,680	4,673	1,455	1,685	1,062	860	1,296	1,578	387	749
Amount reported in line 4 charged on parents' books of sold on commission basis and included in lines 2 and 3 above	3,242	3,631	1,231	1,416	669	666	1,060	1,158	282	366

1. See methodology for derivation of export totals.
2. This includes all shipments consigned to residents of the foreign countries in which U.S. parent companies have affiliates; exports of parent companies to other countries, or sold through intermediaries are not included.
3. For 1963 the amount in line 5 is \$813 million less than the total of lines 2 and 3. This represents primarily direct purchases by affiliates (\$39 million in table 3), that part of exports charged on the parent company books but shipped by others, and a part of the commission sales. Separate amounts are not available for these items.

NOTE.—Detail may not add to totals because of rounding.

Methodology

The annual survey on U.S. Exports to Foreign Affiliates of U.S. Firms (Form BE-124) is designed to provide data on the movement of U.S. exports to or through foreign affiliates of U.S. firms. The first such survey covered the year 1962; this report includes the results of that survey as well as the data for 1963 obtained in the summer of 1964. The number of U.S. parent companies reporting in 1963 was 296, covering about 7,490 foreign affiliates.

No benchmark data exist for exports to foreign affiliates, and therefore the attempt to blow up some of the data to universe totals is based on a tie to statistics on sales of foreign affiliates collected from a smaller group of reporters providing data annually on Form BE-124, Sources and Uses of Funds of U.S. Direct Investments Abroad (see *SURVEY OF CURRENT BUSINESS* for October 1964, page 54). The data for exports to manufacturing and distribution affiliates have been expanded to universe estimates by relating exports to the sales of the same foreign affiliates, and then relating these sales to previously calculated total sales of affiliates in each area and industry. For capital equipment, a relationship to plant and equipment expenditures was used. The following table indicates the extent of the resulting blow-up of reported amounts:

1963 Exports to Foreign Affiliates
(Millions of dollars)

	As reported		Expanded total	
	Manufacturing	Trade	Manufacturing	Trade
All areas, total	1,785	687	8,221	1,221
Canada	292	121	1,094	240
Latin America	301	202	810	304
Europe	431	297	728	511
Other areas	171	67	328	116

As the relatively large volume of exports of reporting companies indicates, the sample of reporters was selected to include enterprises having a large volume of exports and sizable foreign operations. The selected group of firms covered mainly manufacturing companies having foreign manufacturing and distribution affiliates. It does not cover companies whose basic activity in the United States as well as abroad is that of a trading or export company.

The companies covered in the mining and petroleum industries include most major companies having international investments and no attempt has been made to expand their exports to universe totals. However, it is believed that this omission is not significant. No attempt was made to cover firms in the service industries.

Definitions

The term "affiliate or affiliated company" used in this article refers to foreign branches, or to foreign companies in which U.S. parent firms own at least 25 percent of the voting stock. Most of these foreign companies are wholly-owned or majority-owned foreign subsidiaries of U.S. firms.

"Exports of selected manufactures" used in Table 6 consists of total U.S. exports of manufactured or semi-manufactured goods, but excludes commodities not common in the activities of U.S. companies abroad, such as animal fats and oils, hides and leather, grains and preparations, civilian aircraft, scrap metal, and coal and related fuels, among others. However, such products or materials as primary metals, synthetic and crude rubber, pulp and waste paper, tobacco manufactures, dairy products and eggs, meat and preparations, fruit, nuts and vegetables, and animal feed, etc. are included because the foreign affiliates produce similar classes of goods. The total of selected exports of manufactures in 1963 was \$12,366 million, which can be compared with total exports of manufactures (SITC classes 5-9) of \$12,566 million.

Data collected in this survey provided information on the type of exports by reporters. These types included exports for processing or assembly, either in the form of parts and components, or as crude and unmanufactured materials or

supplies; exports for resale without further manufacture; capital equipment and machinery, and exports made to the affiliate on a commission basis, among others. Information supplied by reporters did not include a breakdown of the exports to foreign affiliates by commodities.

Notes to charts

Exports used in the chart on page 28, Estimated Exports to Foreign Affiliates, include the blow-up totals for manufacturing and distribution, including partial information on exports by other (than parent) U.S. firms to these foreign affiliates. For other industries (petroleum, mining, etc.), the amounts used are reported totals for 1963 without any blow-up.

Exports, used for the chart on page 27, Imports From U.S. as Share of Total Sales, include the blow-up total for manufacturing companies, broken down by areas, but exclude the export of capital equipment for use by the foreign affiliates and United States exports sold by the foreign affiliates on a commission basis.

Exports in the second chart on page 22 include all exports to manufacturing affiliates abroad on a blow-up basis. These exports have been carried back to 1957 as the basis of more limited information for 1949 and 1960 collected by OBE in 1962 (Form BE-900, Special Survey of Foreign Subsidiary Operations) and for 1957 obtained in the OBE Survey of American Business Investments in Foreign Countries. Exports for 1967, 1969 and 1980, were matched with sales for the same foreign affiliates for those years, and related to universe totals based on the ratio of matched sales to total sales of all foreign manufacturing affiliates.

Exports in the chart on page 28, Direct Transactions of Foreign Manufacturing Affiliates with the U.S., cover exports to foreign manufacturing affiliates only. Data on U.S. imports from foreign affiliates are taken from the October, 1964 Survey of Current Business, table 7, page 12, and cover the same manufacturing industries and commodities as the statistics on U.S. exports covered by this article.

Expansion in Plant and Equipment Expenditures—Continued from page 7

had been in a declining phase from 1957 to early 1963, have shown a substantial pickup this year. Both groups are projecting sharp increases in the first half of next year.

Airlines step up purchases

Rising plant and equipment expenditures of the nonrail transportation group are reflecting mainly increased purchases by the airlines for medium- and short-range jet craft. From mid-1962 to mid-1964 expenditures of the airlines had declined as the long-range jet acquisition programs matured. With the improvement in their financial position as a consequence of the completion of major equipment payments and increased jet travel, airlines are now turning to an interim program of

equipment buying, prior to the acquisition of supersonic craft.

Railroad expenditures rise sharply

Capital expenditures by the railroads this year will probably exceed \$1½ billion—up one-third from 1963, for the third successive year of substantial expansion. Expenditures in the early part of next year are expected to reach a rate of about \$1½ billion.

Investment by railroads has characteristically fluctuated very widely. Peak outlays, in the neighborhood of \$1½ billion, were made in 1949, 1951, and 1957; on the other hand, spending has fallen as low as \$½ billion—\$¼ billion in 1954, 1958, and 1961. Since the spending trough in the fourth quarter of 1961, road and equipment

expenditures have increased by 150 percent—more than in any other expansion in the postwar period.

The extended recovery has approximately coincided with a marked improvement in railroad net operating income, which had dropped to its lowest point in more than 40 years in the first quarter of 1961. The carriers have been placing special emphasis on the modernization of their freight cars. Business generated by the railroad equipment expenditures is reflected in the rise of more than two-fifths in the production of freight car equipment since early 1961. Over the same period expenditures for road have held relatively stable and are very low by postwar standards.